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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,940	07/11/2003	Joseph P. Downes	GSIL 0117 PUSA I	3974
22045	7590	04/08/2005	EXAMINER	
BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			HEINRICH, SAMUEL M	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/617,940

Applicant(s)

DOWNES ET AL.

Examiner

Samuel M. Heinrich

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-38 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/03 & 02/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4, 6-8, 10-14, 16-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,985,780 to Garnier et al in view of US Patent Application Publication 2003/0142313 A1 to Katayama and in view of Applicant's Admitted Prior Art (AAPA).

With respect to claims 1 and 10, Garnier et al disclose a marking system and describe controllably steering a laser beam along orthogonal intersecting axes (e.g., Figure 3). As shown by Garnier et al in Figure 8, plural marking locations are utilized. Garnier et al do not describe a conveyor feature. Katayama describe [0061] the use of

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a conveyor robot. The use of a conveyor in the Garnier et al system would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the conveyor improves the automation of the engraving machine.

Claim 2, AAPA includes a number of references pertaining to image sensing and the use of the well known control would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the sensing provides useful workpiece data.

With respect to claims 3 and 4, the position of the article with respect to the laser beam is the same depending on the type of conveyor workstation being used and both stationary and conveyed articles are described in AAPA.

Claims 6-8 and 16-18, AAPA describes well known electric circuit substrates and their use with the Garnier et al system would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because identifying electric circuit devices is almost universal.

Claims 11-14, AAPA describe well known vision subsystem elements.

With respect to claim 20, the claimed accuracy is a size limitation which does not, by itself, impart patentability to the claim.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garnier et al in view of Katayama as applied to claim 2 above, and further in view of USPN 5,895,588 to Matsumura et al. Scanning an article is described by Matsumura et al and the use would have been obvious at the time applicant's invention was made to a

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person having ordinary skill in the art because it provides precise input features of the workpiece.

Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garnier et al in view of Katayama as applied to claims 1 and 10 above, and further in view of USPN 4,910,725 to Drexler et al. Drexler describes a 25 micron spot (column 1, line 37) and the engraving of such a spot with the Garnier et al system would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it is a well known marking.

Claims 21-26 and 28-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garnier et al in view of Applicant's Admitted Prior Art (AAPA). The instant claimed particular elements pertaining to vision subsystems and article types and features and size limitations are all disclosed in the references submitted in AAPA Information Disclosure Statements. The use of features which are well known in the instant field of art would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because they pertain to laser systems and to marking processes. Further, the claiming of particular articles for use with an apparatus does not generally impart patentability to the claim because it does not limit the apparatus.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garnier et al as applied to claim 21 above, and further in view of USPN 4,910,725 to Drexler et al. The 25 micron spot is well known in the art.

***Allowable Subject Matter***

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

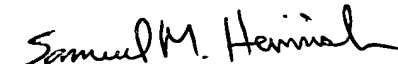
***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art pertains to laser marking systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Samuel M Heinrich  
Primary Examiner  
Art Unit 1725

April 06, 2005

SMH